CLAIMS

1)- Reciprocating blade system for knife, allowing high cutting efficiency to be achieved without dragging on the object to be cut, characterised by a blade with curved or arc-shaped cutting edge, able to oscillate or swing in relation to the support to which it is attached by any means which allows it to move in this way, so that the cutting edge is able to execute a to-and-fro movement on the object to be cut when the handle is moved from front to rear as for any knife, thus approaching the design of conventional blades and differing from blades which are circular or which vary in circumference and of different shapes rotating about an pin, while still having the advantages of the latter and avoiding their drawbacks.

2)- Reciprocating blade system for knife, characterised in that the blade (1) with curved or arc-shaped cutting edge (5), is attached to a support (3) extended by a handle (4), amongst other possible means of attachment, by an pin (2) which allows it to oscillate or swing in relation to this support, so that this cutting edge executes a to-and-fro rolling motion along arrows (7) and (7bis) (figures 2 and 3) on the object to be cut, when the handle is moved from front to rear as when cutting with any other knife (figures 1,2 and 3).

3)- Knife according to either of the previous claims, characterised in that the blade (1), includes a stop (6), which arrests its to-and-fro movement at the limit of each direction, when this stop comes up against parts (3bis) and (3ter) of the rod (3) (figures 2 and 3), so that the cutting edge (5) still remains in contact with the object to be cut, and prevents the blade (1) from over-rotating either partially or completely.

4)- Knife according to claim 4, characterised in that the stop (6) can take various forms, and in particular the concave shape as described in figures 2 and 3, which is opposite to the convex shape taken by the support rod (3) at this point, and having the advantage of softening the contact with parts (3bis) and (3ter) of the support rod.

5)- Knife according to claims 4 and 5, characterised in that the stop (6) can also be composed of a spring or of a soft material such as plastic or rubber.

6)- Knife according to any of the previous claims characterised in that the length of cut is increased when moving the handle to the rear by slightly displacing the pin (2) to the left of the arc formed by the blade, and vice versa.

7)- Knife according to any of the previous claims, characterised in that, amongst other

possible means of attachment, the blade (1) is attached to the support rod (3) by a swivel (2bis) which also allows it to oscillate along arrows (7) and (7bis) (figure 4). This swivel can be an integral part of the support rod (3) as in figure 4, and act as a hinge in the blade (1), or can form an integral part of the blade (1) and act as a hinge in the support rod (3). In this event, the extremities (9) and (9bis) of the blade (1) act as an end-stop, since the to-and-fro movement will be stopped when they come into contact with parts (10) and (10bis) of the rod (3).

8)- Knife according to any of the previous claims, characterised in that, amongst other possible means of attachment, the blade (1) is attached to the support rod (3) by a spring (2 ter) in the extension of the support rod, which also allows it to oscillate along arrows (7) and (7bis) (figure 5).

9)- Knife according to claim 10, characterised in that the spring (2ter) can be located on the side of this support rod, as shown in figure 6, or fitted in other ways.

10)- Knife according to any of the previous claims, characterised in that the cutting edge (5) of the blade (1) can be smooth, toothed or micro-toothed.

11)- Knife according to any of the previous claims, characterised in that the shape of the handle, and the system for fitting it, can be varied and in different materials without affecting the operation of the system. The support rod (3) and the handle (4), can also be manufactured in a single piece.

12)- Knife according to any of the previous claims, characterised in that the blade (1) can be made from various materials such as steels, ceramics, etc., that are normally used for cutting blades.

13)- Knife according to any of the previous claims, characterised in that the blade (1) can also be made from plastic materials, especially when manufacturing inexpensive and disposable knives.

14)- Knife according to any of the previous claims, characterised in that, amongst other uses, it can be employed at table as an individual knife for the cutting of foods such as, pizza, pies, etc. in particular.